

REMARKS

This is intended as a full and complete response to the Office Action dated July 24, 2008, having a shortened statutory period for response extended one month set to expire on November 24, 2008. Please reconsider the claims pending in the application for reasons discussed below.

Claim Rejections - 35 U.S.C. § 112

The Examiner rejected claims 1-33 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

The Examiner in particular points out that the phrase "*calculating whether ON or OFF constitutes a correct condition for any connected non-durable consuming apparatus, on the basis of information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings, turning connected non-durable consuming apparatuses on and off in accordance with the results of said calculating,*" is confusing and that its enablement lacks support in the specification. To increase readability of the claim we have amended this part of the claim to read: "...*determining whether information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings satisfies a condition for any connected non-durable consuming apparatus to be switched on; if so, turning connected non-durable consuming apparatuses on, if not, turning connected non-durable consuming apparatuses off,*".

We believe that the amendment clarifies aspects of the claim, hence rendering the claim acceptable with respect to readability. The wording of this part of the claim is supported by the following parts of the specification:

On page 25 lines 34- page 26 lines 2, section: "***Implementation of the downstream communication path:*** The load shaving decisions are calculated in part by use of reference information about each electrical load and each distributed generation units (DG) stored for each connection point device in the system".

From page 41 section: "**#12: Algorithm – Calculate load to be turned-on or turned-off at the End-user's premises**" it is stated: *"The Block: Algorithm – Calculate electrical load to be turned-on or turned-off at the End-user's premises" or # 12, is the key algorithm related to generation of information and control signal in order to reduce the cost of the energy supplied to the End-user. The algorithm consists of a knowledge database and a qualitative argument procedure to decide if parameters extracted from the inputs should generate the following:*

- *Information to the End-user in connection with the cost of electrical energy and the competitor's price on electrical energy*
- *A set of possible electrical loads to be turned-on or turned-off at the End- user's premises",*

Reference shall also be made to the following sections on page 47: "**#2: Input from computer program A and #3: Input from computer program C** "

Further reference to the "algorithm for determining (calculating) will be found on page 47: "**Computer program product C** Figure 17c shows computer program product C more in detail and how the computer program product C, exchanges information with computer program products A and B, respectively. Input to computer program product C are also the measured periodic energy consumption and the End-user's priorities with respect to which electrical load that should be a candidate to be turned-on or turned-off. The output from the computer program is a list containing control signals to be distributed to the electrical loads to be turned-on or turned-off." Further on the same page:

"#1: Input from computer program A

The Block: " Input from computer program A" or # 1, represents continuously collected information and control signals containing a list of which electrical loads to be turned-on or turned-off at the End-user's premises.

#2: Input from computer program A

The Block: " Input from computer program A" or # 2, represents continuously collected information connected to control signals containing a list of which electrical loads to be turned-on or turned-off due to a decision of rationing. Rationing is used to shave peak electrical loads in an emergency mode of operation or in a situation with lack of electrical energy available in a specific geographical area, where the End-users are located.

#3: Input from End-users

The Block: " Input from End-users" or # 3, represents the End-users' priorities with respect to electrical load that may be turned-on or turned-off based on the price of electrical energy in the market."

Based on the teachings in the specification as indicated in the above it is obvious that the amendments have support in the specification. The wordings calculate, determining and deciding is used interchangeably throughout the specification. The meaning of the passage "*determining whether information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings satisfies a condition*" shall be construed with assistance in the specification. Hence determining can be used in place of calculate, the replacement increases readability in that determining in its literal meaning is closer connected to; "take a decision based on conditional statements". The further meaning of the wording should be obvious, the decision (determination) shall be based on a combination of parameters contained in the control signal, the users' choice i.e. the End-users adjustable parameter value settings and stored algorithms. These parameters are well documented in the specification, and in one aspect of the invention this conditional choice is one of the strengths of the invention.

The rejection of claim 2-12 should be overcome in light of the discussion above.

Now turning to claim 13, which before amendments read:" *The method of claim 1, wherein any one of said electronic boxes is physically or functionally divided in an intelligent home gateway and a metering gateway, said intelligent home gateway*

receiving said control signals, decoding them, calculating ON and OFF conditions for all connected apparatuses and transmitting turn-off and turn-on commands to bring said apparatuses into the calculated condition, while also communicating with said metering gateway, and said metering gateway performing two-way communication with said intelligent home gateway, performing communication with at least one non-durables metering device, and transmitting at least metering data to said Multi Utility provider.” In accordance with the discussion above and with the amendments to claim 1 the wording “*calculating*” has been replaced in the amended claims to read “*determining*”. The same reasoning as given above with respect to claim 1 applies mutatis mutandis.

The same reasoning for the rejection of claim 20 pursuant to 35 USC § 112 first paragraph as for claim 1 is presented by the Examiner, hence corresponding amendments has been carried out and the same reasoning against the rejection set forth are mutatis mutandis prevailing.

Now turning to claim 27, which have been amended in correspondence with the amendments of claim 13, hence the wording “*calculating*” has been replaced in the amended claims to read “*determining*”. The same reasoning as given above with respect to claim 13 applies mutatis mutandis.

The Examiner rejected claims 34-41 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner indicated that it was unclear which software code portions and computer program elements that were considered in the claim. To overcome this lack of clarity rejection the claim has been amended so as to not make reference to claim 1 in general but more precisely to recite the features in claim 1 that serves as basis for “A computer program product” according to claim 34. The amendments to the claims will in our opinion make the claim clear and concise, at least so in light of the specification.

Claim 36 was considered as “totally unclear” in its meaning. Hence the claim has been amended. To make the claim more in consistence with previous claims the wording; “*A control broadcast signal...*” has been replaced with “*A broadcast control signal...*” Further to ease readability of claims 36 it has been added an indication of who is the addresser of the broadcast control signal namely a Multi Utility provider. The intro of the claim now clearly states that this is a “A broadcast control signal”. Thus it is in essence NOT a method (process or use) category claim. It is an apparatus category (means for doing something i.e. means plus function) the means (apparatus) being the signal. The signal is a control signal comprising control functions to enable automatic management of demand for non-durables. The parameters included in the signals which is used for this management is at least pricing information and rationing information regarding amount of consumption reduction.

Claim 37-39 has been amended in accordance to the amended claim 36.

Claim 40 was considered as “totally unclear” in its meaning. Hence the claim has been amended. The claim has been amended to a system claim from being essentially an apparatus claim (return signal) the system comprises the means of Multi Utility provider, control signals (from Multi Utility provider to End users), a data communication signal from End users to Multi utility provider, where the signal from the End users enables non-durables delivery control and pricing influenced by demand, said signal containing at least non-durables consumption information. The return channel is different than the channel for transmitted control signals.

Claim 41 was considered confusing in that it was not clear which part of the claim that represented known features and which parts that represented novel features. The claim shall be construed as a method comprising all mentioned steps and where the combinations of these steps are novel. As to the meaning of the claim the method comprises a number of steps resulting in a return signal. The goal of the method is indicated in the preamble of the claim, whereas the achieved result is indicated as

establishing a return signal using telephone or cellular connection to said Multi Utility Provider for delivering said data.

Claim Rejections - 35 U.S.C. § 103

The Examiner rejected claims 1-24 26-38 and 40-42 under 35 U.S.C. § 103(a) as being obvious over *Ehlers et al.* (U.S. 5,572,438).

Firstly, the understanding of the present invention must be seen in its correct context, hence it will be helpful to take a closer look at the main features and drawbacks of US Patent 5,572,438 by Ehlers et. al, hereinafter referred to as Ehlers. The invention according to Ehlers' requires more computation due to the amount of information it needs to process: it needs to keep track of every load on the customer's premises (or at least, to keep track on those loads that need to be controlled). C11, L53-59 says: *"Before returning to a description of the CPEU-- PGM modules, it should be understood that information about the loads at the customer premises and about the energy and power usage of those loads and of the premises as a whole is maintained in a data structure or structures indicated collectively at 38 (FIG. 4) and physically located in memory 18-B."* And C12, L24-35 says: *"A second data structure 44 (FIG. 6), DEVICE, is arranged as a table having one entry per load device to be monitored or controlled. For each load, the data structure preferably maintains substantially the following information in separate fields: the power the device normally consumes when it is turned on, watts, 44A; the current the device normally consumes when it is turned on, amps, 44B; the voltage across the device when it is turned on, volts, 44C; the power factor for the device if it is a reactive load, power factor, 44D; a code indicating the kind of load the device is--e.g., resistive, inductive or fluorescent, load.- type, 44E"*. The specialized electronic boxes according to the present invention such as the Bbox do not have this requirement; in fact it is closer to the old-fashioned radio receiver than to a computer. This is clearly indicated in the specification in which it is found numerous references to radio technologies such as DAB RDBS etc.

As a consequence of the drawbacks related to the extensive need for computer power Ehlers have to meet the computing requirements and the information entering, by

providing dedicated microcomputers, two computers, to be exact. See: C4, L7-50 that says: *"A first microcomputer preferably is placed externally to the customer premises, adjacent to (or even within the housing of) the electric utility power meter. A second microcomputer preferably is placed inside the customer premises. The two microcomputers are equipped to communicate with each other and with the various load control modules via the network/data bus e.g., using CEBus transceivers implementing the CEBus protocol); additionally, at least the first microcomputer preferably is equipped to communicate with the utility company via any appropriate communications link (such as a power line carrier system... The second microcomputer inside the premises serves, in part, as an input/output terminal for the system, allowing the customer to set parameters and query the system as to power usage information. It displays reports requested by the customer and also displays messages transmitted by the utility company and by either microcomputer. The first microcomputer acts as a master controller, communicating with the world outside the premises and being the primary data collector and operator of load control modules, with the second microcomputer acting as an input/output subsystem (accepting customer input, and providing or displaying messages and reports to the customer), providing certain backup functions, and, if desired, acting as a secondary controller."*

Ehlers' computers need to draw power directly from the ac power line. In fact, C15, L59-65 says: *"The first microcomputer is always powered (i.e., "on") whenever there is voltage present on the ac service cable to the premises. Preferably it receives its power directly from the utility company's lines outside the premises."* This is problematic when power outage occurs. The specialized electronic boxes according to the present invention such as the Bbox can be powered by battery (as it is a radio receiver), thus provides a reliable and fast method to help grid operator during power restoration.

Ehlers' method requires the user going through an elaborate procedure to Add Device or Delete Device. FIGS. 11-15 are illustrative of some of the screens presented to the customer on the display of a second microcomputer 22 to obtain entry of user-

assignable parameters. The display of FIG. 11 is provided by step 36C (FIG. 4), inviting the customer to select an option by choosing a "button," such as the "Add Device" button 62. If the Add Device button is selected, the customer is next presented with the screen of FIG. 12, where there are various data to be entered in a conventional manner, following which the customer is to use the F10 key to save the entries. If the customer selects the Schedule Events button on FIG. 11, the screen of FIG. 13 is next being presented and the customer is allowed to enter appropriate data. If the customer selects the Delete Device button on FIG. 11, the screen of FIG. 14 is next presented and the customer is allowed to select and delete a device. If the customer selects the Enter New Rate button on FIG. 11, the screen of FIG. 15 is next presented and the customer is allowed to enter a new energy cost, cost-- kwh. This elaborate method is because according to Ehlers' their invention relies on detailed information about each load. In accordance to the present invention the specialized electronic boxes such as the Bbox does not need that.

The wording of the amended claims shall be seen in light of the discussion above. However to further indicate non obviousness with respect of the amended claims a feature by feature discussion is given below in a table. For the reasons set forth herein, Applicants respectfully request the § 103(a) rejection of claims 1-24 26-38 and 40-42 be removed and allowance of the same.

Claim # amended where indicated	Examiner rejection is based on the following passages (features) in the claims previously on file.	Reference to Ehlers' cited by the Examiner.	Differences between Ehlers' and the present application according to the claims previously on file.
1, 20, 34, 36, 40-42 (amended)	Providing at End- users' premises specialized electronic boxes having microprocessor	C8, L12-18 says: Turning now to FIG. 1, there is shown a block diagram of an exemplary implementation of an energy management	The "specialized electronic boxes" are NOT microcomputers per se. in the sense of Ehlers'.

	capability for performing the following functions...	<p>system according to the present invention. The system 10 includes a customer premises external unit (CPEU) 12 which includes a communications interface unit 16 and a first microcomputer 18;</p> <p>C9,L42 says: The first microcomputer requires no keyboard and no display (except that they may optionally be provided for installation and diagnostic use). Preferably, it is contained in a waterproof and weather-tight housing on or immediately adjacent the customer premises' exterior wall, next to the watt-hour meter, at the electric service entrance to the premises.</p>	<p>Unlike Ehlers' invention that need at least two microcomputers, the specialized electronic box is akin to radio receivers, which is not "contained in a waterproof and weather-tight housing on or immediately adjacent the customer premises' exterior wall" and can be installed anywhere inside the customer's premises.</p>
1, 20, 34, 36, 40-42 (amended)	Receiving broadcast control signals from a Multi Utility provider	<p>C25, L9-10 says: To shed a load, all that is necessary is to broadcast a command for a device at a specific address to turn off or for all devices of a particular priority level or levels or type to turn off.</p> <p>C25, L16-17 says: To turn on all shed loads, a predetermined message can be broadcast over the network.</p>	<p>The meaning of broadcast shall be construed in its correct context. The meaning of broadcast according to the present invention is to BROADCAST from a utility provider to thousands of customers (long distance), whereas broadcast in the quoted statements means sending message over "the network". Hence</p>

			this feature differs in that the Multi Utility provider does not broadcast over a network.
1, 20, 34, 36, 40-42 (amended)	End-users programming said boxes by setting parameter values in accordance with End-users' priorities	C10, L28-30 says: The USER-- PGM program is the customer's interface to the system; it assembles historical data from the CPEU-- PGM program and formats that data into reports for the customer, permits the customer to schedule timed turn-on/turn-off events and transmits those events to the CPEU-- PGM program for execution.	
1, 20, 34, 36, 40-42 (amended)	Broadcasting from a multi-utility provider a control signal to be received by said boxes	C12, L17-18 says: to switch between applicable rates, the utility company may broadcast a command to switch to another field for selecting a rate or the CUSTOMER data structure may also have fields for relating the cost-- kwh fields to the associated times they apply.	An aspect and achievement according to the present invention is the efficient use of power supply achieved by selecting proper signal content such as hourly rate of electricity and how often the broadcast is made e.g. once per day.
1, 20, 34, 36, 40-42 (amended)	said boxes taking automatic turn-off or turn-on action for some non-durable consuming apparatuses in accordance with stored control algorithms, parameter values set by said End-users and	C13, L41-59 says: Referring to FIGS. 8-10, additional data structures maintained by the system include a meter history table (METER) 52, a device history table (DEVICE HISTORY) 54 for at least each device whose power consumption is monitored, and a TIMED (i.e., scheduled)	The key to making Ehlers' invention work is that the microcomputer keeps track of every single load in the household (their power consumption, history, etc.). The present invention does not

	information provided by said control signal	EVENTS list 56 (also called an Event table). The METER table 52 may contain fields 53A-53H, for example, recording information pertinent to each meter reading. This information may include some or all of the following: the CEBus house (or commercial premises) code, cebus--hc, 53A, which forms a first part of the meter's electronic address; the CEBus unit code, cebus--unit, 53B, which forms a second part of the meter's electronic address; the last meter reading recorded, current, 53C; in a first table having twenty-four entries--one for each hour of the day, the first meter reading for the corresponding hour, current-- start, 53D; in a second such table, the last meter reading for the corresponding hour, current-- reading, 53E; in a third such table, by hour, the accumulated energy used that month, exclusive of the current day, mtd, 53F;	need to be aware of what load is being connected in the house; only the loads that draw power via the colored switches (red, green, blue) will be turned on/off. There is no mentioning or hints in Ehlers' that indicates that said boxes taking automatic turn-off or turn-on action for some non-durable consuming apparatuses in accordance with stored control algorithms, parameter values set by said End-users and information provided by said control signal. Hence this feature differs essentially from the feature referred to in C13, L41-59
1, 20, 34, 36, 40-42 (amended)	determining whether information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings satisfies a condition for any	C25, L32-36 says: The status flag in the device table may be set to indicate the shed status of a device. If an "end load shedding" broadcast is received, then for each device on the system, the first microcomputer checks the status flag and	Quotation from the office action: "Ehlers does not explicitly teach calculating whether ON or OFF constitutes a correct condition for any connected non-durable

	connected non-durable consuming apparatus to be switched on; if so turning connected non-durable consuming apparatuses on, if not, turning connected non-durable consuming apparatuses off,	generates a command to restore power to the load.	consuming apparatus, on the basis of information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings, turning connected non-durable consuming apparatuses on and off in accordance with the results of said calculating.” However, Ehlers teaches calculating a status flag of each device on the system, checking the status flag and generating a command to restore power to the load, said status flag is changed whether the load in ON of OFF condition, wherein said status flag is change, also, during timed event (C25, L32-36)) Hence this feature differs essentially from the teachings of Ehlers’.
1, 20, 34, 36, 40-42	The Examiner discusses	C25, L37-41 says: The status flag is changed,	This is a non-issue. The present

(amended)	calculation of ON/OFF status of the loads	also, during timed events. If a timed event occurs during a load shedding incident initiated by the power utility, the setting of the flag to a timed-event-in-progress condition will prevent the device from being turned on by a general "end load shedding" message.	invention does not keep track of the ON/OFF status, the claims does not indicate surveillance of the statuses as such it merely indicates conditions governing turn-on/turn-off.
43, 45 (new)	The method of claim 1, wherein said method further comprises the step of: providing to the End-users prices in real time.	C12, L17-18 says: to switch between applicable rates, the utility company may broadcast a command to switch to another field for selecting a rate or the CUSTOMER data structure may also have fields for relating the cost-- kwh fields to the associated times they apply.	There is no hint in Ehlers' indicating to provide real time prices to End-Users. However Ehlers, mentions broadcasting a command to switch to another field for selecting a rate... there may also be indications as cost—kWh associated with times, however no real time indications. The feature is novel over Ehlers'.
44, 46 (new)	said boxes transmitting back to said Multi Utility provider instant or semi-instant non-durable consumption values at said End-users' premises , thereby collectively influencing market pricing of said non-durables	C15, L9-11 says: to send to the utility company power outage reports, low voltage condition reports, customer usage reports and selected other data.	Note that these messages are not mandatory for the whole system to work, hence in the amended claim 1 and 20 this feature is cancelled. Given that some feature in the amended claim 1 differs essentially from Ehlers' teachings, claim 44 and 46 also differs essentially.

44, 46 (new)	said boxes transmitting back to said Multi Utility provider instant or semi-instant non-durable consumption values at said End-users' premises, thereby collectively influencing market pricing of said non-durables	C32, L46-55 says: Energy Brokerage--The present invention also facilitates the implementation of a system allowing a real-time energy sourcing marketplace, or brokerage. Various electrical energy suppliers can publish their rate structures to potential customers; this can be done as often as is practical, though changing rates more frequently than hourly is unlikely to be desirable. The customer, using the second microcomputer as a communications terminal, can receive these publications if they are provided electronically and then select a new supplier for any future time interval.	Ehlers' invention does NOT say anything about the instantaneous impact of demand reduction on price. According to the present invention this is clearly indicated see also Figure 18. Given that some feature in the amended claim 1 differs essentially from Ehlers' teachings, claim 44 and 46 also differs essentially.
2	The method of claim 1, wherein said End-users set parameter values in accordance with estimated importance of their various apparatuses	C12, L32-33 says: the priority code for the device, to be used in load shedding operations (explained below), priority, 44F; C29, L59-63 says: customers are allowed to prioritize their loads and the utility can transmit (both to individual customers and to groups of customers, such as those in a particular area) a message to disconnect loads of selected priorities, or in priority sequence.	Both inventions invite the End-user to set priority for the loads, but how the load shedding is done is very different. Ehlers indicated that "the utility transmit a message to disconnect loads of selected priorities". This means that the utility can directly control the loads in the house. The present invention prevents the utility to directly interfere with the

			customer's loads; rather, the present invention lets the specialized electronic boxes decide which loads it will drop first. Also, the claim shall be interpreted in conjunction with its previous claim 1, hence rendering the claim inventive over Ehlers'.
3	The method of claim 1, wherein said End-users <u>set</u> parameter values based on pricing of the non-durables.	C12, L17-18 says: to <u>switch</u> between applicable rates, the utility company may broadcast a command to switch to another field for selecting a rate or the CUSTOMER data structure may also have fields for relating the cost-- kwh fields to the associated times they apply.	Like Ehlers', the present invention allows the price to be a parameter that the user can input. But the quote of C12, L17-18 is irrelevant because that quote discusses what signal the utility sends out; whereas the point of the present invention is about what the end user can input. I.e. the choice is at the End-user. This feature differs essentially from the quoted feature in Ehlers', taking into consideration that this claim is dependent on features from claim 1 which also differs essentially from features

			indicated by Ehlers' this claim must be non-obvious.
4	The method of claim 1, wherein said Multi Utility provider broadcasts a control signal containing pricing information regarding said non-durables.	C12, L2-18 says: Turning now to FIG. 5, a first data structure 42, CUSTOMER, contains several fields for receiving and storing information (parameters or variables) about the customer, such as the energy rate or rate code under which the customer is charged, cost-- kwh, field 42A; the customer's name, name, field 42B; the customer's address, addr, field 42C; and the customer's account number, acer, field 42D. (The size of each field is a matter of design choice; indeed, a given field, such as the addr field, may be subdivided into smaller fields for constituent information such as the street, city, state and zip code portions of an address.) If multiple rates apply to the customer's charges, such as different rates for power consumed at different times of the day, there may be multiple cost-- kwh fields; to switch between applicable rates, the utility company may broadcast a command to switch to another field for selecting a rate or the CUSTOMER data structure may also have fields for relating the cost-- kwh fields to the	The quotation from C12, L2-18 does not indicate any transmission of control signal from a provider to an end-user. C15, L7-8 indicates that "The first microcomputer 18 also can communicate..." but no mentioning of broadcasting or control signals. Further it says: "...receive real-time energy rate broadcasts.", hence no mentioning of control signals only information. This feature differs essentially from the features referred to in the quotation from the Examiner.

		<p>associated times they apply.</p> <p>C15, L7-8 says: The first microcomputer 18 also can communicate with the power company via a suitable communications interface 16 and associated channel to receive real-time energy rate broadcasts...</p>	
6	<p>The method of claim 1, wherein said Multi utility provider broadcasts a control signal containing information regarding rationing.</p>	<p>C3, L18-22 says: For example, during natural disasters and peak load times such as excessively hot summer days, it may be a valid power system management plan to ration power delivered to specific customers, or to specific appliance types, such as water heaters, pool pumps, air conditioners, or low priority (i.e., non-essential) loads in general, in order to prevent generator or distribution system problems.</p>	<p>The quotation from C3, L18-22 does not indicate any transmission of control signal from a provider to an end-user. It only indicates that a valid power system management plan to ration power can be provided. Hence no mentioning of the necessary means for effectuating such a plan. This feature differs essentially from the features referred to in the quotation from the Examiner.</p>
7	<p>The method of claim 1, wherein said Multi Utility provider provides at least one of electrical energy, thermal energy, gas and freshwater to a community of End-users.</p>	<p>C15, L7-8 says: to send to the utility company power outage reports, low voltage condition reports, customer usage reports and selected other data.</p>	<p>The Ehlers' does in said quotation refer to signals to the utility company, it reposts something about low voltage, hence indicating that the provider delivers power.</p>

			<p>However claim 7 indicates three specific services delivered to End-users from a Multi Utility Provider. This feature differs essentially from the quoted feature in Ehlers' and shall also be assessed in combination with claim 1.</p>
8, 9	<p>8. The method of claim 1, wherein said Multi Utility provider broadcasts the control signal via at least one commercial radio broadcasting station.</p> <p>9. The method of claim 8, wherein said commercial radio broadcasting station utilizes anyone of the RDS, RBDS and DAB systems for broadcasting the control signal.</p>	<p>C3, L7-9 says: The prevention of such occurrences is one reason electric utility companies will have radio stations broadcast <u>requests</u>, during such outages, <u>for customers to turn off</u> appliances and other loads until after power is restored.</p> <p>C9, L26-32 says: For example, an ISA radio-frequency network interface (including a transceiver and control logic) card may be plugged into one connector 18-F1 for use <u>in communicating between the system and the utility company</u>, while a CEBus interface node (i.e., transceiver and control logic) may be plugged into another connector 18-F2 for use in communicating between the first microcomputer and the load control modules.</p>	<p>In the present invention use of commercially-owned subcarrier channels (RBDS, etc.) to send out signals to specialized electronic boxes is one feature. . The "radio stations" in Ehlers' context means one of these two things: 1) the radio station <u>owned by the utility itself</u> which sends out signal to devices at customers' sites, or 2) a commercial AM/FM radio station, which broadcast voice signals for the human customers to hear. Option 1 is costly for the utility even though some level of automation can be</p>

			achieved; Option 2 is inexpensive but is not linked to automation. Also this feature differs from the teachings of Ehlers'.
10	The method of claim 1, wherein said Multi Utility provider broadcasts the control signal via a satellite radio broadcast system	The Examiner indicated: use of TV and suggests satellite communications	TV in the Ehlers' document means either terrestrial (radio waves) or cable. This claim is also dependent on claim 1, hence includes features that differs from those provided by Ehlers'.
11	The method of claim 1, wherein said boxes transmit back consumption values via any of a telephone network and a mobile telephone network.	C15, L12 says: The communications channel may, for example, be the telephone system, cable TV system, or a radio-frequency link; it may also be a power-line carrier (PLC) system such as a modification of the technology marketed by Elcon.	
12	The method of claim 1, wherein communication between said electronic boxes and said non-durable consuming apparatuses inside said End-users' premises is effected by use of PLC technology, preferably in accordance with an	C15, L14 says: The communications channel may, for example, be the telephone system, cable TV system, or a radio-frequency link; it may also be a power-line carrier (PLC) system such as a modification of the technology marketed by Elcon.	What Claim 10 says is about the communications inside the house, i.e. between said electronic boxes and said non-durable consuming apparatuses What C15, L14 of Ehlers' says is about the communications

	X10 standard.		between the customers and the utility facility. Hence this feature differs essentially from the quoted feature of Ehlers'.
13 (amended)	The method of claim 1, wherein any one of said electronic boxes is physically or functionally divided in an intelligent home gateway and a metering gateway, said intelligent home gateway receiving said control signals, decoding them, determining ON and OFF conditions for all connected apparatuses and transmitting turn-off and turn-on commands to bring said apparatuses into the determined condition, while also communicating with said metering gateway, and said metering gateway performing two-way communication with said intelligent home gateway, performing communication with at least one non-durables metering device, and transmitting at least metering data to		The features of the amended claim 13 are a further specification of features from claim 1. The corresponding features of claim 1 where not indicated by Ehlers' hence rendering this claim non obvious. The claim has been amended so as to ease understanding of the meaning of the claim.

	said Multi Utility provider.		
14-16			The claims are dependent both on claim 1 and claim 13 hence non obvious with respect to prior art.
17	The method of claim 1, wherein non-durables production in distributed generation units (DG) attached to any of industrial End-users, commercial End-users and groups/communities of private End-users, is governed by said electronic boxes and in accordance with the End-users' settings and priorities.	Ehlers' US Patent 5,572,438 says nothing about DG	`There is no mentioning of DG units in Ehlers, hence this feature differs essentially from the teachings of Ehlers'.
19	The method of claim 1, wherein service restoration from said Multi Utility provider after an outage situation is effected by broadcasting restoration signals to bring about step-wise turning on loads at End-users' premises by appropriate action by said electronic boxes.	C25, L16-20: To turn on all shed loads, a predetermined message can be broadcast over the network. Alternatively, messages can be addressed by the first microcomputer to specific devices to be turned off or to which power is to be restored.	The keyword in this claim is STEP-WISE. Step-wise allows less "shock" to the system than a one-shot load restoration than what Ehlers' advocates. Hence this feature differs essentially from the quoted feature in C25, L16-20.
25, 39	25. The system of claim 20, wherein	Ehlers' US 5,572,438 does not say anything	Encryption (and decryption) is not

	<p>said broadcasting network includes microprocessor capability for encrypting data to be broadcast to End-users.</p> <p>39. The control broadcast signal of claim 36, wherein said signal is an encrypted signal.</p>	<p>about encryption. Ehlers' US2004/0117330 says the following: [0302] 34. Communications channel interface parameters and data including types and routing information necessary to perform communications activities on the attached network or networks available. These parameters include all information required to perform password verification and encryption as needed or deemed necessary by the owner, operator or communications system provider. These parameters also include the necessary routing and identification data for alarm trigger reporting points and services used by or subscribed for or available to the site 1.04.</p>	<p>mentioned in the Ehlers' US 5,572,438 hence this feature differs essentially from this patent publication. The other publication of Ehlers', namely US2004/0117330 mentions password protection and encryption, however this publications differs essentially in all its other features. Claim 25 and 39 are non obvious.</p>
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The Examiner rejected claims 25 and 39 under 35 U.S.C. § 103(a) as being obvious over *Ehlers* '438. and *Ehlers et al.* (US 2004/0117330). Applicants respectfully traverse the rejection. Claim 25 depends from claim 20 and claim 39 depends from claim 36. As set forth above, *Ehlers* '438 fails to disclose all the limitations of claims 20 and 36. Further, *Ehlers et al.* (US 2004/0117330) fails to cure the deficiencies of *Ehlers* '438. This failure precludes the combination of *Ehlers* '438 and *Ehlers et al.* (US 2004/0117330) from rendering claims 25 and 39 obvious. Therefore, Applicants respectfully request the § 103(a) rejection of claims 25 and 39 be removed and allowance of the same.

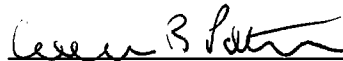
New Claims

New claims 43-46 have been added to claim aspects of the present invention. Applicants submit that no new matter has been added. Claims 43-44 depend from claim 1 and claims 45-46 depend from claim 20 and these claims are allowable for at least the same reasons as claims 1 and 20. Therefore, Applicants believe that new claims 43-46 are in condition for allowance and respectfully request the same.

Conclusion

Having addressed all issues set out in the office action, Applicants submit that the claims are in condition for allowance and request that the claims be allowed.

Respectfully submitted,



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